

Claims

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is as follows:

1 1. A retractable electric wall outlet assembly, comprising:
2 a cover plate defining a generally rectangular opening;
3 an electric box having an electric plug receptacle, said electric box being coupled to
4 said cover plate for movement between an inoperable configuration retracted
5 through said opening rearward of said cover plate and an operable configuration
6 extending through said opening forward of said cover plate;
7 means for biasing said electric box toward said operable configuration; and
8 a latch assembly for releasably holding said electric box at said inoperable
9 configuration.

1 2. The retractable electric wall outlet assembly as in claim 1 wherein said electric
2 box is pivotally coupled to said face plate adjacent said opening such that said electric box is
3 pivotally movable through said opening between said inoperable and operable configurations.

1 3. The retractable electric wall outlet assembly as in claim 2 wherein said biasing
2 means is a torsion spring mounted to a rear surface of said face plate and connected to said
3 electric box for biasing said electric box toward said operable configuration.

1 4. The retractable electric wall outlet assembly as in claim 1 wherein said latch
2 assembly includes:

3 a latch member mounted to a rear surface of said electric box and extending outwardly;
4 a track structure mounted to a rear surface of said cover plate and extending outwardly,
5 said latch member being positioned to engagingly move along said track structure
6 when said electric box is moved between said operable and inoperable
7 configurations; and

8 wherein said track structure defines a recess for receiving and releasably holding said
9 latch member when said electric box is at said inoperable configuration.

1 5. The retractable electric wall outlet assembly as in claim 4 wherein:
2 said track structure includes a generally Y-shaped configuration having a deep slot
3 extending substantially between said rear surface of said cover plate and said
4 recess and being in communication with said recess;
5 said latch member being constructed of a shape memory material, whereby said latch
6 member is configured to engage and travel along said deep slot and is naturally
7 biased to be deposited into said recess and retained therein when said electric box
8 is moved to said inoperable configuration.

1 6. The retractable electric wall outlet assembly as in claim 5 wherein:
2 said track structure includes a shallow slot extending between said recess and a
3 proximal end of said deep slot and being in communication therewith; and
4 said latch member is naturally biased to engage said shallow slot when said latch
5 member is urged beyond said recess such that said latch member travels along

6 said shallow slot and is deposited in said deep slot when said electric box reaches
7 said operable configuration.

1 7. The retractable electric wall outlet assembly as in claim 6 wherein:
2 said electric box is moved from said operable configuration to said inoperable
3 configuration upon a first depression of said electric box; and
4 said electric box is moved from said inoperable configuration and said operable
5 configuration upon a second depression of said electric box.

1 8. The retractable electric wall outlet assembly as in claim 1 wherein said latch
2 assembly includes:

3 a latch member mounted to a rear surface of said electric box and extending outwardly;
4 a support member mounted to a rear surface of said cover plate and extending
5 outwardly; and
6 a push latch mounted to a distal end of said support member relative to said cover plate
7 for selectively capturing and releasing said latch member.

1 9. The retractable electric wall outlet assembly as in claim 1 wherein:
2 said electric box includes a generally rectangular configuration being dimensioned
3 slightly smaller than dimensions of said cover plate opening such that said
4 electric box can pass through said opening; and
5 a front surface of said electric box is substantially flush with a front surface of said
6 cover plate at said inoperable configuration and said electric box front surface is
7 forwardly displaced from said front surface of said cover plate at said operable
8 configuration.

1 10. A retractable electric wall outlet assembly for providing selective access to
2 electric receptacles, comprising:

3 a generally flat cover plate having a rectangular configuration dimensioned to overlay a
4 wall electric outlet opening, said cover plate defining a generally rectangular
5 opening having dimensions substantially similar to dimensions of the wall
6 electric outlet opening;

7 an electric box being pivotally coupled to said cover plate and having a plurality of
8 electric plug receptacles, said electric box being movable through said cover plate
9 opening between a retracted configuration in which an electric box front surface
10 is generally flush with a cover plate front surface such that said plurality of
11 electric plug receptacles are inaccessible and an extended configuration in which
12 said electric box front surface is forwardly displaced from said cover plate such
13 that said plurality of electric plug receptacles are accessible;

14 a spring coupled to said cover plate and connected to said electric box for biasing said
15 electric box toward said extended configuration; and

16 a latch assembly interconnecting said electric box and said cover plate for releasably
17 holding said electric box in said retracted configuration.

1 11. The retractable electric wall outlet as in claim 10 wherein said latch assembly
2 includes:

3 a latch member mounted to a rear surface of said electric box and extending outwardly
4 therefrom, said latch member having a tip at a free end thereof;

5 a support member mounted to a rear surface of said cover plate and extending
6 outwardly therefrom, said support member having a generally arcuate

7 configuration corresponding to an angular path defined by the pivotal movement
8 of said electric box;

9 a track structure situated on said support member having a deep slot extending
10 substantially between said cover plate and a distal end of said support member
11 and having a recess at a distal end of said deep slot, whereby said latch member
12 tip engages said deep slot for movement therein and is captured in said recess
13 when said electric box is moved from said extended configuration to said
14 retracted configuration.

1 12. The retractable electric wall outlet as in claim 11 wherein said track structure
2 includes a shallow slot cooperatively connecting said recess with a proximal end of said deep
3 slot, whereby said latch member tip engages said shallow slot for movement therein when
4 said latch member is urged beyond said recess for movement of said electric box from said
5 retracted configuration to said extended configuration.

1 13. The retractable electric wall outlet as in claim 12 wherein said latch member
2 is biased to engage said recess when said latch member is moved to said deep slot distal end
3 and is biased to engage said shallow slot when said latch member is urged beyond said
4 recess.

1 14. The retractable electric wall outlet as in claim 13 wherein said latch member
2 is constructed of a shape memory material configured to engage and travel along said deep
3 slot, said latch member being biased toward said recess for retention therein when said
4 electric box is moved to said retracted configuration.

1 15. The retractable electric wall outlet as in claim 12 wherein said deep and
2 shallow slots are configured such that said latch member is deposited into said deep slot at
3 said proximal end of said deep slot.

1 16. The retractable electric wall outlet as in claim 10 wherein said latch assembly
2 includes:

3 a latch member mounted to a rear surface of said electric box and extending outwardly;
4 a support member mounted to a rear surface of said cover plate and extending
5 outwardly; and
6 a push latch mounted to a distal end of said support member relative to said cover plate
7 for selectively capturing and releasing said latch member.

1 17. The retractable electric wall outlet as in claim 10 wherein said spring is a
2 torsion spring.

1 18. The retractable electric wall outlet assembly as in claim 16 wherein said
2 support member includes a generally arcuate configuration corresponding to an angular path
3 of the pivotal movement of said electric box.

1 19. The retractable electric wall outlet as in claim 10 wherein:
2 said electric box includes a generally rectangular configuration having dimensions
3 slightly smaller than dimensions of said cover plate opening such that said
4 electric box can pass through said opening; and
5 a front surface of said electric box is substantially flush with a front surface of said
6 cover plate at said retracted configuration and said electric box front surface is

7 forwardly displaced from said front surface of said cover plate at said extended
8 configuration.

1 20. A retractable electric wall outlet assembly for providing selective access to
2 electric receptacles, comprising:
3 a generally flat cover plate having a rectangular configuration dimensioned to overlay a
4 wall electric outlet opening, said cover plate defining a generally rectangular
5 opening having dimensions substantially similar to dimensions of the wall
6 electric outlet opening;
7 an electric box being pivotally coupled to said cover plate and having a plurality of
8 electric plug receptacles situated on opposed side panels, said electric box being
9 movable through said cover plate opening between a retracted configuration in
10 which an electric box front surface is generally flush with a cover plate front
11 surface such that said plurality of electric plug receptacles are inaccessible and an
12 extended configuration in which said electric box front surface is forwardly
13 displaced from said cover plate such that said plurality of electric plug receptacles
14 are accessible;
15 a torsion spring coupled to said cover plate and connected to said electric box for
16 biasing said electric box toward said extended configuration;
17 a latch assembly interconnecting said electric box and said cover plate for releasably
18 holding said electric box in said retracted configuration, said latch assembly
19 comprising:
20 a support bracket mounted to a rear surface of said cover plate and having a
21 track structure;
22 a latch member mounted to a rear surface of said electric box and extending
23 outwardly therefrom defining a longitudinal axis, said latch member
24 being positioned to engage said track structure;

25 said track structure having a deep slot with a distal end displaced from said
26 longitudinal axis, said latch member being naturally biased to return
27 toward said longitudinal axis;
28 said track structure defining a recess in communication with said distal end
29 of said deep slot for releasably capturing said latch member when
30 said latch member is urged to said distal end of said deep slot; and
31 said track structure defining a shallow slot connecting said recess with a
32 proximal end of said deep slot when said latch member is urged out
33 of said recess, said shallow slot being configured to guide said latch
34 member to said deep slot proximal end when said electric box is
35 moved from said retracted configuration to said extended
36 configuration.